Claims.

1. Method for determining the angular displacement (φ_o) of the output shaft (24) of an impulse nut runner at tightening of a screw joint to a desired final torque level (T_f), wherein the impulse nut runner includes an impulse unit (23) with a motor driven inertia drive member (27) delivering one torque impulse per full revolution relative to the output shaft (24), and an angle sensing device (35,38) arranged to detect the rotational movement (φ_D) of the inertia drive member (27), comprising the following steps:

- defining a threshold torque level (T_t) from which the rotational movement (φ_D) of the inertia drive member (27) shall be detected,
- determining the total rotation angle (φ_{Dtot}) of the inertia drive member accomplished by the total number of torque impulses (N_{tot}) counted from said threshold torque level (T_t), and
- calculating the total angular movement (φ_{Otot}) of the output shaft (24) accomplished by the total number of torque impulses (N_{tot}) counted from said threshold torque level (T_t) by reducing said determined total rotation angle (φ_{Dtot}) of the inertia drive member (27) counted from said threshold torque level (T_t) by the total angular movement (φ_{Ntot}) of said total number (N_{tot}) of full revolutions minus one full revolution [$(N_{tot} - 1) \cdot 360°$].

2. Method according to claim 1, wherein said threshold torque level (T_t) is a predetermined percentage of the desired final torque level (T_f).